

CLAIMS

1. A reinforcing non-woven base fabric comprising:
reinforcing fiber yarns that are formed into a sheet
5 shape by using a support fibrous member,
wherein the support fibrous member is formed of
multifilament yarn that is made of composite fibers
constituted by at least two or more polymers having a
difference in melting points.
- 10 2. The reinforcing non-woven base fabric according to
claim 1, wherein the composite fiber has a core-sheath
structure in which the sheath portion is made of a polymer
having a lower melting point than that of the core portion.
- 15 3. The reinforcing non-woven base fabric according to
claim 1 or claim 2, wherein the at least two or more
polymers having a difference in melting points are all made
of olefin-based polymers.
- 20 4. The reinforcing non-woven base fabric according to
any of claims 1 to 3, wherein, with respect to the at least
the two or more polymers having a difference in melting
points, the high melting point polymer is a polypropylene
polymer and the low melting point polymer is polyethylene
or a low melting point polypropylene polymer.
- 25 5. The reinforcing non-woven base fabric according to
any of claims 2 to 4, wherein the core-sheath structure of

the composite fibers having the core-sheath structure has a polypropylene (core portion)/polyethylene (sheath portion) structure or a polypropylene (core portion)/low melting point polypropylene (sheath portion) structure.

5 6. The reinforcing non-woven base fabric according to any of claims 1 to 5, wherein not less than two layers thereof are laminated with the reinforcing fiber yarns being used as a group of warp yarns and with the support fibrous member being used as a group of weft yarns.

10 7. The reinforcing non-woven base fabric according to claim 6, having a three-layer structure in which two upper and lower layers of the groups of warp yarns with a fixed interval are placed, with the group of weft yarns being interpolated therebetween and the lower layer is laminated
15 with an offset of a 1/2-pitch so as to place the yarn of the group of lower-layer yarns between the yarns of the groups of upper-layer yarns.

 8. The reinforcing non-woven base fabric according to any of claims 1 to 5, wherein the support fibrous member
20 has a mesh structure in which multifilament yarns using composite fibers composted of at least two or more polymers having a difference in melting points are used as at least wefts.

 9. The reinforcing non-woven base fabric according to
25 any of claims 1 to 8, wherein the sheet shape is maintained

through fusion-bonding.

10. The reinforcing non-woven base fabric according to any of claims 1 to 9, wherein the reinforcing fiber yarns are fiber extended yarns.

5 11. The reinforcing non-woven base fabric according to any of claims 1 to 10, wherein a plurality of reinforcing fiber yarns are aligned in one direction.

12. The reinforcing non-woven base fabric according to any of claims 1 to 10, wherein the reinforcing fibers
10 form biaxial reinforcing fiber yarn sheets that are made of a warp sheet in which the reinforcing fiber yarns are aligned in the length direction and a weft sheet in which the reinforcing fiber yarns are aligned in the width direction.

15 13. The reinforcing non-woven base fabric according to any of claims 1 to 10, wherein the reinforcing fibers form multi-axial reinforcing fiber yarn sheets that are constituted by a yarn sheet made of reinforcing fiber yarns which, supposing that the length direction of the sheet is
20 0° , are aligned in 0° -direction, a yarn sheet made of reinforcing fiber yarns which are aligned in a $+\alpha^\circ$ -direction as well as in a $-\alpha^\circ$ -direction ($0 < \alpha < 90$) and a yarn sheet made of reinforcing fiber yarns which are aligned in a 0° -direction and/or in a 90° -direction.